

Equipment Maintenance

MAINTENANCE MANAGEMENT B TECHNIQUE

This volume in conjunction with Volume I provides headquarters guidance and policy on the maintenance management and general maintenance practices for the "B" Technique field locations except for Det 06X, which is covered in CENR 66-1, Vol XI. It defines maintenance restoral priorities, establishes equipment status reporting criteria, and provides guidance on unique procedures.

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Supersedes CENR 66-1, Volume VIII, 30 May 1985. (See signature page for summary of changes)  
No. of Printed Pages: 19  
OPR: LGM (TSgt M.G. Stiewig)  
Approved By: Col. R.L. Mackrill  
Editor: SSgt A. J. Mariner  
Distribution: X

1. Terms. Within the maintenance complex, the person in charge of the maintenance production workcenter will assume the responsibilities of Workcenter Supervisor; the Detachment Commander, Detachment Chief or Station Manager will assume the responsibilities of Maintenance Supervisor; and the Parent Unit/LGM will assume the responsibilities of Chief of Maintenance unless specifically assigned to another unit or individual elsewhere in this volume or other volumes of CENR 66-1 or by headquarters LGM directive. Additional terms and abbreviations are identified in Volume I.

2. Maintenance Training. Periods of equipment outage have been authorized for the purpose of training. Specific time periods are allocated in CENR 55-2 under each Specific Station Requirement (SSR). Maximum utilization will be made of these training times to maintain operator and maintenance technician proficiency. Training schedules should be maintained to ensure all technicians have an opportunity to use this training time. Advisor locations will maximize host participation through the use of agreements, schedules, etc. Any time a location is denied this authorized equipment outage, except under the Special Operations Plan, HQ/LGM will be notified of the denial by routine message with info to the parent unit.

3. Unattended Station Maintenance (SUSS and Det 460 BU Sites).

a. Scheduled Maintenance. Routine visits to the SUSS or Det 460 BU sites to perform scheduled maintenance actions will be accomplished semiannually.

b. Unscheduled Maintenance. Response to unscheduled maintenance requirements in a Partial Mission Capable (PMC) or Not Mission Capable (NMC) status at the SUSS or Det 460 BU sites will be as rapid as possible within the limitations imposed by safety considerations and the availability of manpower and equipment. Unscheduled maintenance requirements within a Fully Mission Capable (FMC) status may be delayed until the next scheduled/routine visit or the next unscheduled higher priority visit.

c. Maintenance Performance.

(1) The Det 460 Workcenter Supervisor is responsible for the scheduling and performance of all maintenance associated with the Det 460 BU sites. To ensure response delay times are kept to a minimum and all required equipment is available, a deployment plan containing all pertinent information will be developed for each site.

(2) Division/LGM has Chief of Maintenance responsibility for SUSS equipment and will integrate the SUSS network into all applicable depot programs such as Depot Assistance Program (DAP), quality assurance, Program Depot Maintenance (PDM), publications, supply, etc. SUSS maintenance will be performed by a Depot Maintenance Team either on a scheduled basis or in response to equipment outages reported by HQ/DOS via ESR and/or telephone notification.

4. Pole Line Maintenance. Although pole climbing is not a requirement for the 99104 job description, units must maintain an emergency, organizational capability to restore the locations data acquisition system which includes the cable plant. This organizational capability requires each location to make all repairs to the cable plant for which their personnel have been properly trained or to make temporary repairs should the final repair be beyond their capability. In cases where the repairs are beyond the location's capability, methods are available to receive support through support agreements with the host and/or AFCC in accordance with TO 00-25-108. In isolated cases where host base or AFCC assistance is not available, contracts for the data line support may be necessary. (NOTE: Only designated contracting offices are authorized to obligate the government via contract with a private enterprise; therefore, guidance from your support procurement activity should be sought on contracting matters.) Advisor locations must ensure the host establishes and maintains the capability to repair data lines. Request for assistance will be forwarded to HQ/LG through the parent unit.

5. Pole/Tower Climbing. Pole/Tower climbing can be extremely hazardous and, when required by our mission, must be accomplished in the safest method possible. All Center personnel who participate in pole climbing are required to comply with the following established guidelines. Advisor locations, though not responsible for host personnel safety, will advise the host on proper methods and unique problems associated with pole or tower climbing if required.

a. To be qualified to climb poles or towers, center personnel must meet one of the following conditions:

(1) Individuals must have completed ATC Course 3AZR36150, Communications Pole Climbing, or

(2) Individuals must have been trained and certified and/or recertified within the past year by an ATC course graduate.

MONTHLY MAINTENANCE LOG					
FOR THE MONTH OF:		LOCATION:		DATE:	
NOVEMBER		DET 452		1 DECEMBER 1986	
SECTION I - EQUIPMENT FAILURE REPORT					
A J. C. N.	B Actual Maintenance Time	C Trouble- shooting Time	D Time Awaiting Parts	E Total Time of Malfunction	F DESCRIPTION (WUC, Failure, Repair, and DOC No.)
6337A	1.2HRS	0.7HRS	N/A	2.4HRS	PGCFD - Printhead not printing tops of characters. R/R printhead.
5309C	3.0HRS	3.0HRS	32DAYS	32DAYS	PBSB0 - No output from 15V power supply. R/R power supply, bad unit returned to depot, doc #S3758863410091, AFTO Fm 350 #382548.
6340D	0.2HRS	0.3HRS	N/A	2.0HRS	PBPB0 - ROF C intermittently would not cal. Adjusted STPR Cal I/F to proper output level.
6342A	0.1HRS	0.1HRS	N/A	6DAYS 12HRS	PBA99 - MTU2 "ON LINE" lamp burnt out, R/R.
5287B	2.8HRS	N/A	55DAYS	N/A	BP100 - FSP PCU: Discovered front panel meter inop while replacing under ESR 4526287B. R/R meter (XB3).
SECTION II - SIGNIFICANT PROBLEM REPORT (If more space is needed, use reverse.)					
1. Waveform Collection System communication link outages for this month: 03/1805Z - 04/0130Z Nov 86 16/0900Z - 17/2102Z Nov 86 2. Our disc has 32,620 hours of operation. What's the maint history of high hour units? 3. Oscilloscope, P/N 485, ID AHA256 - Still AWP at host PMEL, part status BP6357.					

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Figure 1. Monthly Maintenance Log

b. Due to differing conditions at each location, individuals who have not completed ATC Course 3AZR36150 must be recertified upon being transferred to a new location. (NOTE: Persons who have not attended an ATC climbing course will not train or certify other personnel by OJT.)

c. Graduates of ATC Course 3AZR36150 need not be recertified upon being transferred to a new location, but must be given an orientation of local conditions at the new location.

d. Certification and recertification will be annotated and maintained in the individuals' training records.

e. When possible, cable maintenance is to be performed using ladders and high reach vehicles.

f. When pole climbing is performed, every effort should be made to ensure an ATC course graduate is present as a climber or a safety observer and all safety precautions listed in AFOSH Std 127-51, para 5h are complied with.

g. In all cases, climbing will be performed by a certified climber with a safety observer present.

h. Workcenter Supervisors must ensure the necessary climbing equipment is available and serviceable.

6. Radio Data Link (RDL). The OPR for RDL system problems is Division/LGM. All difficulties with RDL frequency allocations will be addressed to HQ/SIR through the parent unit with HQ/LGM and Division/LGE as info addressees. If the RDL interference meets the ESR criteria in paragraph 11, an ESR will be submitted.

7. Support Agreements. Support agreements are desired when possible. The maintenance unit will make known its requirements for support and the following, as a minimum, will be submitted to the host base for negotiation within the agreement:

a. Pole/Data Line Maintenance - performance of semiannual inspections, replacement/repair of data lines, poles and messenger cable with associated hardware (the organizational unit furnishes all supplies).

NOTE: Inputs within this category may need to be separated into the functions of AFCC support (e.g., inspections, data and messenger cable replacement, etc.) and those functions which are base CE responsibility (e.g., pole replacement, etc.).

b. Antenna Maintenance - inspection and repair of guy wires, antenna structure, anchor pads, and associated hardware.

8. Maintenance Documentation. The Maintenance Data Collection (MDC) program and the Equipment Data Collection (EDC) program rely on inputs received from the Equipment Status Reports (ESR) and the Monthly Maintenance Logs (MML); therefore, the timely submission of complete and accurate reports is very important. To ensure accurate MML inputs, a Local Maintenance Log (LML) will be maintained by the workcenter.

a. Local Maintenance Log. This log will be an accurate record of all equipment maintenance performed on B Technique equipment within each workcenter. Malfunctions corrected by operations personnel, PMIs, calibrations, and frequency responses will not normally be listed in the LML unless repair actions are required. The LML will be formatted to contain, as a minimum, a job control number (JCN) for each malfunction (see paragraph 11a(5)) and all information required for the completion of an MML or an ESR. If a maintenance action is required in connection with a TCTO/TCTI, a JCN will be assigned and entries made in the LML. If desired, the LML may be expanded to encompass all maintenance actions.

b. Monthly Maintenance Log. The MML will be accomplished at the end of each month using CEN Form 35. The MML will be typed or printed and forwarded by the fifth working day after the end of the month to the parent unit, with copies to HQ/LGM and Division/LGE. It will contain all maintenance actions on equipment identified as EDC reportable in TI 2-1-06 but which did not meet ESR reportable criteria (paragraph 11). Maintenance actions will be reported for the month the repair was completed. When FSP assets are repaired on site, include WUC, part number, description of failure and parts replaced. One copy of the MML will be retained at the workcenter. The MML will be prepared in the format shown in Figure 1 and will include the following information:

NOTE: All times will be reported in hours and tenths of hours.

(1) Section I - Equipment Failure Report:

(a) Job Control Number (JCN) (see paragraph 11a). The MML need only reflect the last 5 digits of the JCN (i.e., 4525017A need only show 5017A).

(b) Actual maintenance time expended on malfunction repair (time multiplied by number of people).

(c) Troubleshooting time (time multiplied by number of people).

(d) Numbers of days awaiting parts (AWP).

(e) Total time of malfunction or outage (NOTE: all times will be in hours and tenths of hours).

(f) The Work Unit Code (WUC) of the item requiring repair, a brief description of the problem, and the repair action. If the failed item is returned to depot for repair, include the document number and serial number of the unit returned. When a serial number cannot be obtained, report the AFTO Form 350 tag number.

(g) FSP items repaired on site will be reported in this section.

(2) Section II - Remarks and Comments. This section is intended to give workcenters a means of identifying problems (technical and non-technical) that may not surface through ESRs or other reports. This section can address any problem that may impact on the maintenance section. The problems usually pertain to areas which may need area/headquarters attention to expedite the solution. The detachment may identify, if known, the office to which the comments are directed. The parent unit will review and track section II comments and notify HQ/LGM of those problems that cannot be resolved at parent unit level. The parent unit will ensure all problems concerning maintenance management policies are coordinated with or referred to HQ/LGM. This section will not be used to replace reports (e.g., MDRs, AFTO Forms 22, etc.) required by other directives. This section will include, but is not limited to:

(a) Any FSP items awaiting parts or maintenance and the reason for the delay (include document number, part number, and nomenclature of parts on order).

(b) Unusual supply delays or vehicle/transportation problems.

(c) Any trends in equipment failures.

(d) Manning problems.

(e) Monthly updates to Test, Measurement, and Diagnostic Equipment (TMDE) problems, (AWP follow-up reports), etc.

(f) Periods of RDL interference or communication outage which do not require an ESR.

(3) Negative reports are required.

(4) To ensure data reported in the MML is accurate and complete, correlate it with the operations station log.

(5) All sites equipped with FDA equipment will attach a copy of the CT Status Log printout from the last day of the month to the MML. If the last day of the month status log is not available, use the most recently printed log.

c. SUSS Documentation. The submission of SUSS related equipment failures and maintenance data is the co-responsibility of the Division/LGM and HQ/DOS. HQ/DOS will provide real-time reporting of equipment failures via ESRs and ESR follow-ups. Information for follow-up reports will be provided daily by the onsite Depot Maintenance Team. The Depot Maintenance Team will provide HQ/DOS all necessary/detailed information to update and close the ESRs prior to departing the site. Equipment failures and repairs not meeting ESR criteria will be reported in the weekly status report submitted by HQ/DOS. The Division MDAT will attach a CEN Form 35, completed IAW paragraph 8b, to the MDAT trip report. In addition to normal distribution, the Division will ensure a copy of the trip report is sent to HQ/LGM and HQ/DOS.

d. Report Control Symbol (RCS). The RCS number for the MML is TOG-LGM(M) 8302.

9. Equipment Status. Three categories of mission capability are used to correlate equipment malfunctions and technique outages in relationship to mission status. The following criteria have been established to meet the mission requirements directed by HQ/TG. The criteria and any special instructions required for each category are identified below with specific location requirements identified in the Attachments to this regulation.

NOTE: The term channel indicates the complete data flow from the sensor through all processing steps until final recording or transmission to the GSOC. Failure of a calibration will carry the status associated with the channel(s) or data affected. Exceeding a scheduled calibration by more than 96 hours will equate to failure of the calibration.

a. Fully Mission Capable (FMC). Stations contribute to the network's detection and identification capability at the level for which the system was established. Operational channels are within tolerances and data are processed (beamformed and analog summed, if applicable), referenced to ZULU time, and recorded on film and magnetic tape. High speed data transmission must be operational. Tape edit functions are required as follows; two (2) tape decks and disc drive operational OR three (3) tape decks operational. Urgency Justification Code BE (priority 05) will be used to requisition parts to repair mission equipment in this status category.

b. Partial Mission Capable (PMC). Station systems are contributing significant data to the network's detection and identification capability but are not FMC. Operational channels are within tolerances, recorded on film, and referenced to ZULU time. Urgency Justification Code AE (priority 02) will be used to requisition parts needed to repair mission equipment in this status category.

c. Not Mission Capable (NMC). Station provides limited data to the network's detection and identification capability but fails to meet PMC criteria or has exceeded a scheduled calibration by more than 96 hours (24 hours at GSS/FDA locations). Urgency Justification Code AE (priority 02) will be used to requisition parts needed to restore mission equipment.

NOTE: Parts ordered priority 02 will be downgraded when the equipment status improves to FMC. Lower priority request will be upgraded when necessary.

#### 10. Maintenance Restoral Priorities:

a. Immediate maintenance is required for Priority 1 restoral. Maintenance will continue until the Priority 1 condition no longer exists or parts required for repair are ordered. All other maintenance scheduling will be at the discretion of the workcenter supervisor upon approval of the maintenance supervisor. Safety of personnel and the guidelines prescribed by CENR 66-1, Volume I, must be considered when directing any maintenance.

(1) Priority 1. Restore recording, timing and calibration capabilities, and other specific requirements to meet at least Partial Mission Capable status. Isolate data communication problems (CRS to GSOC or unmanned site) and rotify the responsible communication support agency of problems external to the location's area of responsibility. Restore high speed modem data transmission.

(2) Priority 2. Restore remaining processing and calibration functions.

(3) Priority 3. Restore internal Waveform Collection System transmit/receive capabilities and edit functions.

(4) Priority 4. Restore valid data from the remaining underground array system (UAS) channels.

(5) Priority 5. Restore valid data from other channels.

b. Equipment problems encountered which are beyond the station capability to repair will be referred by message to the Parent Unit. The Chief of Maintenance will request assistance in accordance with CENR 66-3, when appropriate. To prevent prolonged equipment outages, it is imperative that the Maintenance Supervisors realistically evaluate their capability to restore inoperative equipment. The ESR may be used to request assistance.

c. The restoral of the SUSS unmanned equipment by an on-site Maintenance Team will be at the discretion of the Maintenance team chief within the constraints of mission requirements. NMC equipment status will carry the highest priority, PMC the next, and FMC the lowest.

11. Equipment Status Report (ESR). Within the maintenance workcenter, the workcenter supervisor has the primary responsibility for ensuring ESRs are properly submitted and will establish a training program to ensure accurate and timely reporting during periods of their absence. Reporting criteria is as follows:

a. ESRs will be initiated whenever an equipment malfunction or technique (data) outage exceeds 6 hours for PMC or NMC conditions or 96 hours for a FMC condition. If parts are required, the ESR and the parts request will be submitted immediately. Submission of the report will not be delayed longer than 24 hours after the initiation criteria has been met. This requires the message be transmitted from the location no later than 30 hours after the start of the malfunction for a NMC or PMC condition or 120 hours for a FMC condition. Waveform Collection System communication link outage beyond the modem will not be reported by ESR but will be included in the MML, Section II.

b. NMC and PMC condition reports will be transmitted priority precedence to HQ/LGM/DOSB with the Parent Unit/LGM and Division/LGE/LGEB as a routine precedence information addressee. FMC condition reports will be transmitted routine precedence. Initial reports on SUSS equipment within a PMC or NMC status will be sent priority precedence to all addressees, including Division/LGM.

c. All reports will be submitted in the format contained in CENR 66-1, Vol I.

12. GSS/FDA Forward Supply Point Procedures. Local procedures will be established for all circuit boards on Forward Supply Point used in the GSS/FDA system that are configured with jumpers IAW TI 2-CT-1. Each PCBs jumpers will be checked against the TI to verify proper configuration.

a. After the check is performed, the DD Form 1574, Serviceable Tag, will be annotated to contain the following information:

(1) The TI number, table, and page numbers used to check the asset.

(2) The legible signature of the person doing the check and the date it was accomplished.

b. A Material Quality Report will be submitted IAW TO 00-350-54 for circuit boards that are found to be incorrectly configured.

OFFICIAL

#### SUMMARY OF CHANGES

Deleted Det 459 from all sections. Deleted Plant-in Place Records (included in CENR 66-1, Vol I). Deleted Figure 3, AFTO Form 224B. Deleted all Pre-GSS SSRs. Added section on GSS/FDA FSP procedures. Changed FMC status requirements. Deleted ESR report instructions. Changed all SSRs FMC/PMC requirements for SP 3-component systems. The UJC for ordering parts against a PMC condition was changed.

## Specific Station Requirements/EL 079

1. Configuration:
  - a. UAS with 19 element array.
  - b. 5 element LP TRIAX array.
  - c. SP3C.
  - d. Station Processor
2. Minimum channels to retain Fully Mission Capable (FMC) status are:
  - a. Short-Period Systems:
    - (1) UAS array - 17 must be operational.
    - (2) SP3C - all verticals and one high gain horizontal must be operational.
  - b. Long-Period System: TRIAX - four sites must be operational.
3. Minimum channels to retain Partial Mission Capable (PMC) status are:
  - a. Short-Period Systems:
    - (1) UAS array - 13 must be operational. UAS array data must be processed.
    - (2) SP3C - high gain vertical and one horizontal or both horizontals must be operational.
  - b. Long-Period System: TRIAX -three sites must be operational.
4. Not Mission Capable (NMC). Less than PMC.



## Specific Station Requirements/EL 244

## 1. Configuration:

- a. 18 element SPRT array.
- b. Single KS36000 with BBRT used as both the 3 component SP and LP system.
- c. Station Processor.
- d. UPS.
- e. Central Terminal.

## 2. Minimum channels to retain Fully Mission Capable (FMC) status are:

## a. Short-Period Systems:

(1) SPRT array - 16 must be operational. SP array data must be processed.

(2) KS36000 with BBRT - <sup>1</sup>all verticals and one high gain horizontal must be operational.

b. Long-Period Systems: KS36000 with BBRT - vertical and both horizontals must be operational.

## 3. Minimum channels to retain Partial Mission Capable (PMC) status are:

## a. Short-Period Systems:

(1) SPRT array - 12 must be operational. SP array data must be processed.

(2) KS36000 - <sup>1</sup>high gain vertical and one high gain horizontal or both high gain horizontals must be operational.

b. Long-Period System: KS36000 with BBRT - must have the vertical or both horizontals operational.

## 4. Not Mission Capable (NMC). Less than PMC.

## NOTES:

<sup>1</sup> Selected vertical will be used in place of the high gain KS36000 vertical.

## Specific Station Requirements/BSRS

1. Configuration:
  - a. UAS with 15 element array.
  - b. Single KS36000 used as both the 3 component SP and LP system.
  - c. Station Processor.
  - d. UPS.
  - e. Ancillary Recording System (ARS).
2. Minimum channels to retain Fully Mission Capable (FMC) status are:
  - a. Short-Period Systems:
    - (1) UAS array - 14 channels must be operational. SP array data must be processed.
    - (2) KS36000 - all verticals and one of the high gain horizontals must be operational.
    - (3) ARS - vertical and one horizontal channel must be operational.
  - b. Long-Period System:
    - (1) KS36000 - high gain vertical and both high gain horizontals must be operational.
    - (2) ARS - vertical and one horizontal channel must be operational.
3. Minimum channels to retain Partial Mission Capable (PMC) status are:
  - a. Short-Period Systems:
    - (1) UAS array - 11 channels must be operational. Processed data channels may be inoperable provided array data are independently summed.
    - (2) KS36000 - high gain vertical and one horizontal or both high gain horizontals must be operational.
    - (3) ARS - vertical or both horizontal channels must be operational.
  - b. Long-Period System:
    - (1) KS36000 - must have the vertical or both high gain horizontals operational.
    - (2) ARS - vertical or both horizontal channels must be operational.
4. Not Mission Capable (NMC). Less than PMC.
5. The following are conditions under which the ARS will be maintained and repaired:
  - a. Maintenance priority 2 should be used when the ARS is NMC.
  - b. Maintenance priority 4 should be used when the ARS is PMC or FMC.
  - c. Repair parts for an NMC condition will be ordered Priority 02, AE.
  - d. Repair parts for an PMC condition will be ordered Priority 05, BE.
  - e. Repair parts for an FMC condition in which data is being lost will be ordered Priority 05, BE. All other parts required to repair an FMC condition may be ordered Priority 05, BE.
  - f. Equipment malfunctions will be reported IAW para 11, however, all messages will be sent by routine precedence.

## Specific Station Requirements/DET 313

## 1. Configuration:

- a. UAS with 13 element array.
- b. Single KS36000 used as both the 3 component SP and LP system (U9 normally used as the high gain SP vertical).
- c. Station Processor.
- d. UPS.

## 2. Minimum channels to retain Fully Mission Capable (FMC) status are:

## a. Short-Period Systems:

- (1) UAS array - 12 must be operational. SP array data must be processed.
- (2) KS36000 - <sup>1</sup>all verticals and one high gain horizontal must be operational.

## b. Long-Period Systems: KS36000 - vertical and both horizontals must be operational.

## 3. Minimum channels to retain Partial Mission Capable (PMC) status are:

## a. Short-Period Systems:

(1) UAS array - 9 must be operational. Processed data channels may be inoperable provided array data are independently summed.

(2) KS36000 - <sup>1</sup>high gain vertical and one high gain horizontal or both high gain horizontals must be operational.

## b. Long-Period Systems: KS36000 - must have the vertical or both horizontals operational.

## 4. Not Mission Capable (NMC). Less than PMC.

## NOTES:

<sup>1</sup> Selected vertical will be used in place of the KS36000 SPZ high gain.

## Specific Station Requirements/DET 415

## 1. Configuration:

- a. 18 element SPRT array.
- b. 6 element KS36000 LP array with five LPRT and one BBRT.
- c. KS 36000 with BBRT SP/LP (selected KS site with a BBRT).
- d. Station Processor.
- e. UPS.
- f. Central Terminal.

## 2. Minimum channels to retain Fully Mission Capable (FMC) status are:

## a. Short-Period Systems:

- (1) SPRT array - 16 must be operational. SP array data must be processed.
- (2) KS36000 with BBRT - all verticals and one high gain horizontal must be operational.

## b. Long-Period System:

- (1) KS36000 array - 5 sites must be operational.
- (2) BBRT - vertical and both horizontals must be operational.

## 3. Minimum channels to retain Partial Mission Capable (PMC) status are:

## a. Short-Period Systems:

- (1) SPRT array - 12 must be operational. SP array data must be processed.
- (2) KS36000 with BBRT - high gain vertical and one high gain horizontal or both high gain horizontals must be operational.

## b. Long-Period System:

- (1) KS36000 array - 4 sites must be operational.
- (2) BBRT - either the vertical or both horizontals must be operational.

## 4. Not Mission Capable (NMC). Less than PMC.

## Specific Station Requirements/DET 421

1. Configuration:
  - a. 19 element SPRT array.
  - b. Single KS36000 with BBRT used as both 3 component SP and LP system.
  - c. Station Processor.
  - d. UPS.
  - e. Central Terminal.
2. Minimum channels to retain Fully Mission Capable (FMC) status are:
  - a. Short-Period Systems:
    - (1) SPRT array - 17 must be operational. SP array data must be processed.
    - (2) KS36000 with BBRT - <sup>1</sup>all verticals and one high gain horizontal must be operational.
  - b. Long-Period Systems: KS36000 with BBRT - vertical and both high gain horizontals must be operational.
3. Minimum channels to retain Partial Mission Capable (PMC) status are:
  - a. Short-Period Systems:
    - (1) SPRT array - 13 must be operational. SP array data must be processed.
    - (2) KS36000 with BBRT - <sup>1</sup>high gain vertical and one horizontal or both high gain horizontals must be operational.
  - b. Long-Period System: KS36000 with BBRT - must have the vertical or both horizontals operational.
4. Not Mission Capable (NMC). Less than PMC.

## NOTES:

- <sup>1</sup> Selected vertical will be used in place of the KS36000 SPZ high gain.

## Specific Station Requirements/DET 452

1. Configuration:
  - a. UAS with 19 element array.
  - b. 7 element KS36000 LP array.
  - c. 3 component SP/LP (uses selected KS site, usually LPE).
  - d. Station Processor.
  - e. UPS.
2. Minimum channels to retain Fully Mission Capable (FMC) status are:
  - a. Short-Period Systems:
    - (1) UAS array - 17 must be operational. Array data must be processed.
    - (2) Three component - all verticals and one high gain horizontal must be operational.
  - b. Long-Period System:
    - (1) KS36000 - 6 sites must be operational.
    - (2) Three component - vertical and both horizontals must be operational.
3. Minimum channels to retain Partial Mission Capable (PMC) status are:
  - a. Short-Period Systems:
    - (1) UAS array - 13 must be operational. UAS array data must be processed.
    - (2) Three component - high gain vertical and one high gain horizontal or both high gain horizontals must be operational.
  - b. Long-Period System:
    - (1) KS36000 - 5 sites must be operational.
    - (2) Three component - either the vertical or both horizontals must be operational.
4. Not Mission Capable (NMC). Less than PMC.

## Specific Station Requirements/SUSS

1. Configuration: (Lajitas (LA), Marathon (MA), Shafter (SH)).
  - a. 1 element SPRT array (LA, MA, SH).
  - b. Single KS36000 with BBRT used as both the 3 component SP and LP system (LA).
2. Lajitas (EL 190), Marathon (EL 191), and Shafter (EL 192) will be handled as individual stations.
3. Minimum channels to retain Fully Mission Capable (FMC) status are:
  - a. Short-Period Systems:
    - (1) Shafter - vertical channel must be operational.
    - (2) Marathon - vertical channel must be operational.
    - (3) Lajitas - <sup>1</sup>all verticals and one horizontal channel must be operational.
  - b. Long-Period System: Lajitas KS36000 - vertical and both horizontals must be operational.
4. Minimum channels to retain Partial Mission Capable (PMC) status are:
  - a. Short-Period Systems:
    - (1) Lajitas - <sup>1</sup>high gain vertical and one horizontal or both horizontals must be operational.
    - (2) Shafter and Marathon will never be in this condition. They will go straight from FMC to NMC status.
  - b. Long-Period System. Lajitas KS36000 - vertical or both horizontal channels must be operational.
4. Not Mission Capable (NMC). Less than PMC.

<sup>1</sup> Selected vertical will be used in place of the KS36000 SPZ high gain channel. When the selected vertical is INOP, SPZ may be used to maintain FML status.

Specific Station Requirements/DET 460  
Post FDA and Pre TOS

1. Configuration: (IL and ALPA).
  - a. 19 element SPRT array (IL).
  - b. Single KS36000 with BBRT used as the 3 component SP system (IL).
  - c. 7 element KS36000 LPRT array (ALPA). A single KS36000 will be used as the 3 component LP system.
  - d. Station Processor.
  - e. UPS.
  - f. Central Terminal.
2. BU Configuration: Beaver Creek (BC), Burnt MT (BM), Indian MT (IM), Fox (FX), and Tatalina (TT).
  - a. SPRT Array:
    - (1) 5 element (BC, BM, IM).
    - (2) 1 element (FX, TT).
  - b. Single KS36000 with BBRT used as both the 3 component SP and LP system (FX).
3. Minimum channels to retain Fully Mission Capable (FMC) status are:
  - a. Short-Period Systems:
    - (1) SPRT array - 17 must be operational. SP array data must be processed.
    - (2) KS36000 with BBRT - all verticals and one high gain horizontal must be operational.
  - b. BU Short-Period Systems:
    - (1) BC, BM, IM SPRT arrays - two instruments must be operational.
    - (2) FX KS36000 with BBRT - <sup>1</sup>all verticals and one horizontal must be operational.
    - (3) TT - instrument with SPRT must be operational.
  - c. Long-Period Systems:
    - (1) ALPA KS36000 LPRT array - 6 vertical channels must be operational.
    - (2) Designated ALPA three component - vertical and both horizontals must be operational.
    - (3) IL and FX KS36000 with BBRT - vertical and both horizontals must be operational.
4. Minimum channels to retain Partial Mission Capable (PMC) status are:
  - a. Short-Period Systems:
    - (1) SPRT array - 13 must be operational. SP array data must be processed.
    - (2) KS36000 with BBRT - high gain vertical and one high gain horizontal or both high gain horizontals must be operational.



b. BU Short-Period Systems:

(1) BC, BM, and IM SPRT arrays - each location must have one channel operational.

(2) FX KS36000 with BBRT - <sup>1</sup> must have a vertical and one horizontal or both horizontals.

(3) TT will never be in this condition. It will go straight from FMC to NMC status.

c. Long-Period Systems:

(1) ALPA KS36000 LPRT array - 5 vertical channels must be operational.

(2) Designated ALPA Three component - Either the vertical or both horizontals must be operational.

(3) IL and FX KS36000 with BBRT - must have the vertical or both horizontals operational.

5. Not Mission Capable (NMC). Less than PMC.

NOTES:

<sup>1</sup> Selected vertical will be used in place of the KS36000 SPZ high gain. When the selected vertical is INOP, SPZ may be used to maintain FMC status.

GSS Specific Station Requirements/DET 460  
Post TOS

1. Configuration: (IL and ALPA).
  - a. 19 element SPRT array (IL).
  - b. Single KS36000 with BBRT used as both the 3 component SP and LP system (IL).
  - c. 7 element KS36000 LPRT array (ALPA). A single KS36000 will be used as the 3 component LP System.
  - d. Station Processor.
  - e. UPS.
  - f. Central Terminal.
2. BU Configuration: Beaver Creek (BC), Burnt MT (BM), Indian MT (IM), Fox (FX), and Tatalina (TT).
  - a. SPRT Arrays:
    - (1) 5 element (BC, BM, IM).
    - (2) 1 element (FX, TT).
  - b. Single KS36000 with BBRT used as both the 3 component SP and LP system (FX).
3. Minimum channels to retain Fully Mission Capable (FMC) status are:
  - a. Short-Period Systems:
    - (1) SPRT array - 17 must be operational. SP array data must be processed.
    - (2) KS36000 with BBRT - high gain vertical and one high gain horizontal must be operational.
  - b. BU Short-Period Systems:
    - (1) TT, BC, BM, IM SPRT arrays - all must be operational.
    - (2) FX KS36000 with BBRT - 1 vertical and both horizontals must be operational.
  - c. Long-Period Systems:
    - (1) ALPA KS36000 LPRT array - 6 vertical channels must be operational.
    - (2) Designated ALPA three component - vertical and both horizontals must be operational.
    - (3) IL and FX KS36000 with BBRT - vertical and one horizontal must be operational.
4. Minimum channels to retain Partial Mission Capable (PMC) status are:
  - a. Short-Period Systems:
    - (1) SPTR array - 13 must be operational. SP array data must be processed.
    - (2) KS36000 with BBRT - high gain vertical or both high gain horizontals must be operational.
  - b. BU Short-Period Systems:
    - (1) BC, BM, and IM SPRT arrays - each location must have 3 channels operational.
    - (2) FX KS36000 with BBRT - must have a vertical and one horizontal or both horizontals operational.
    - (3) TT will never be in this condition. It will go straight from FMC to NMC status.

c. Long-Period Systems:

- (1) ALPA KS36000 LPRT array - 5 sites must be operational.
- (2) ALPA three component - either the vertical or both horizontals must be operational.
- (3) IL and FX KS36000 with BBRT - either the vertical or both horizontals must be operational.

NOTES:

<sup>1</sup> Selected vertical will be used in place of the KS36000 SPZ high gain. When the selected vertical is INOP, SPZ may be used to maintain FMC status.